

TRACE TERMINATION FOR ON-THE-FLY GARBAGE COLLECTION FOR
WEAKLY CONSISTENT COMPUTER ARCHITECTURE

ABSTRACT

5 A method for memory management in execution of a
program by a computer having a memory includes allocating
respective portions of the memory to data objects using
mutator threads of the program, whereby the objects are
held in a heap created by the program. The data objects
in the heap are traced so as to mark the data objects
10 that are reachable at a given stage in the program. The
computer loops over the mutator threads so as to verify
for each of the mutator threads that every update to the
allocated portions of the memory in progress by the
mutator thread has been completed. The heap is then
15 swept so as to free the memory that is allocated to the
data objects that are not marked as reachable, for
reallocation to new data objects.